

Alameda Reuse and Redevelopment Authority

Memorandum

To: Honorable Chair and
Members of the Alameda Reuse and Redevelopment Authority

From: Lisa Goldman
Acting Executive Director

Date: April 6, 2011

Re: Authorize the ARRA Port Manager, NRC Environmental Services, to
Replace the Pier 2 Fendering System in an Amount Not to Exceed
\$260,000

BACKGROUND

In April 2006, the Alameda Reuse and Redevelopment Authority (ARRA) approved a 20-year sublease with the Maritime Administration (MARAD). As part of the Technical Requirements in support of the lease, the ARRA must maintain and operate functional piers, including the fendering system. The purpose of installing fenders on the pier is to protect the vessel and the pier from damage when the vessel berths alongside the pier. The fenders absorb the berthing energy of the vessel and soften the berthing impact on the pier. Fenders can be classified into timber fenders, rubber fenders and plastic fenders, according to the type of materials used.

Historically, the Navy used timber fender systems to berth vessels and over the years, the fender systems have largely remained the same. NRC recently incorporated the use of rubber elements, mainly tires, to the system, to increase its energy absorption. Due to the aging and subsequent degradation of the existing fendering system, MARAD's ships have experienced cosmetic and slight hull damage. The 20-year plan for operating the piers included replacement of a staged fender system for the MARAD ships. As a result, the reconstruction of the Pier 2 fendering system is proposed as phase one of this replacement process.

DISCUSSION

Timber fenders, like those currently at Alameda Point, are mainly produced from tropical hardwoods, and such application is not environmentally friendly. There is also a high damage rate for the timber fenders due to wear and tear by vessels, and this has resulted in substantial maintenance requirements. Hence, further use of timber fenders is not recommended. Staff wanted the replacement of the fendering system to be cost-efficient and protect the pier integrity and the ships' cosmetic appearance and structure. As the ARRA Port Manager, NRC Environmental Services (NRC) researched a variety of fendering systems and conducted visits to ports in the region to determine the system that would work best in Alameda.

The existing concrete dock configuration will support an upgraded and more modern fendering structure, which includes a cell type of fendering system. The proposed structure can be fabricated and installed using the available space and on the area of the present pier, so there will be limited demolition of the existing wooden system in order to accommodate the new system. Additionally, the new system will not impact the strength or integrity of the existing piers.

The project will proceed in three phases:

1. Demolish existing fendering structure;
2. Locate rebar and core drilling; and
3. Install new fendering.

The new structure is pre-fabricated and ready to be bolted onto the pier. Three of the four areas of Pier 2 will be upgraded to the new fendering system.

FINANCIAL IMPACT

The FY10-11 ARRA budget included \$200,000 for the Pier 2 Fender System Project. The remaining \$60,000 will come from savings in the ARRA operating budget, Fund 858. There is no impact to the General Fund.

RECOMMENDATION

Authorize the ARRA Port Manager, NRC Environmental Services, to replace the Pier 2 Fendering System in an amount not to exceed \$260,000.

Respectfully submitted,



Jennifer Ott
Deputy City Manager

By:



Nanette Mocanu
Finance & Administration Manager

Approved as to funds and account,



Fred Marsh
Controller